

# PYRAMID

## congratulations...

On your purchase of a Pyramid Signature Series amplifier. This amplifier extends the pyramid tradition into a totally new series of amps, designed from the ground up to deliver the power, performance and flexibility the modern car audio enthusiast demands.

When you check the list of features offered by the PB744, PB844 and PB1644, you'll know you made the right choice with a Pyramid Power amplifier.

# PYRAMID

## precautions

Do not operate the amplifier when it is unmounted, Attach all audio system components securely within the automobile to prevent damage, especially in an accident.

Do not mount this amplifier so that the wire connections are unprotected, or in a pinched condition, or likely to be damaged by nearby objects.

Before making or breaking power connections in your system, disconnect the vehicle battery. Confirm that your head unit or other equipment is turned off while connecting the input jacks and speaker terminals.

If you need to replace the power fuse, do so only with a fuse identical to that supplied with the amplifier. Using a fuse of a different type or rating may result in damage that isn't covered in the manufacturer's warranty.

## notes

# protection circuitry troubleshooting

The built-in protection circuitry in the Pyramid Signature amplifiers will disable the amplifier if it senses an input overload, a speaker short circuit, or extreme temperature conditions.

When the protection circuit is activated by any of these conditions, the Protection LED will be illuminated.

If this occurs, carefully inspect the system to determine the source of the problem.

If the shutdown was a result of a thermal overload condition, allow the amplifier to cool down before attempting to restart it.

If the shutdown was a result of an input overload, or speaker short circuit, be sure to correct the condition before restarting.

The amplifier can be restarted by turning the remote power OFF and then ON again.

## No output.

Confirm that all terminal strip connections are secure and tight.

Check both in-line and built-in fuses. Both the +12V and the Remote terminals must have +12V referenced to chassis ground.

Confirm that the audio signal source (car radio, equalizer, etc.) is connected and is supplying output signal. To check if the amp is supplying signal, unplug the cables from the signal source (but leave them plugged into the amp). Briefly tap the center pin of each of the disconnected RCA plugs with your finger. This should produce a noise (feedback) in your speakers.

## Only one channel works.

Confirm that all terminal strip connections are secure and tight.

Check the Balance control on the head unit (or other source) to verify that it is set to its midpoint.

If you are using the Low Level RCA input, reverse the input plugs at the amplifier (i.e., switch the L with the R). If the channels which is silent switches to the other side, the problem is either in the head unit/other source or the connecting cables.

## Weak output.

Readjust the Input Level Control(s) to better suit the input signal.

## Noise in the audio.

If the noise is a "whine" whose pitch follows the engine speed, confirm that the amplifier and any other signal sources (head unit, etc.) are properly grounded. If the noise is a "clicking" or "popping" noise whose rate follows the engine speed, this usually means that the vehicle is equipped with resistor spark plugs and wires, or that the ignition is in need of service.

Check the routing of the speaker and input wires to make sure they are not adjacent to wires which interconnect lights and other accessories.

If the above steps fail to improve or clear noise interference, the system should be checked by a professional mobile audio installer.

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# PYRAMID general features

## PB744

### High Performance 1000Watt 2 channel Bridgeable MOSFET Amplifier

- 500 Watts×2 Output
- 1000 Watts×1 Bridged Output
- Variable Hi/Lo Electronic Crossover Network
- Variable Bass Boost(0+18dB@60Hz)
- Variable Input Level(Gain)Control
- Remote Turn on/Off
- RCA Inputs
- MultiFuntion VFD
- Power ON LED Indicator
- LED Protection Indicator
- S/N Ratio: >95dB
- THD :<0.04%
- Thermal Protection
- Overload Protection
- Short Circuit Protection
- Anti-Thump Turn-On

## PB844

### High Performance 1600Watt 4 channel Bridgeable MOSFET Amplifier

- 400 Watts×4 Output
- 800 Watts× 2 Bridged Output (400W×2+800W×1)
- Variable Hi/Lo Electronic Crossover Network
- Variable Bass Boost(0+18dB@60Hz)
- Variable Input Level(Gain)Control
- Remote Turn on/Off
- RCA Inputs
- MultiFuntion VFD
- Power ON LED Indicator
- LED Protection Indicator
- S/N Ratio: >95dB
- THD :<0.04%
- Thermal Protection
- Overload Protection
- Short Circuit Protection
- Anti-Thump Turn-On

## PB1644

### High Performance 4000Watt 4 channel Bridgeable MOSFET Amplifier

- 1000 Watts×4 Output
- 2000 Watts× 2 Bridged Output (100W×2+2000W×1)
- Variable Hi/Lo Electronic Crossover Network
- Variable Bass Boost(0+18dB@60Hz)
- Variable Input Level(Gain)Control
- Remote Turn on/Off
- RCA Inputs
- MultiFuntion VFD
- Power ON LED Indicator
- LED Protection Indicator
- S/N Ratio: >95dB
- THD :<0.04%
- Thermal Protection
- Overload Protection
- Short Circuit Protection
- Anti-Thump Turn-On

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## mounting and installation

Your new Pyramid Signature Series amplifier comes complete with required mounting hardware. When determining a suitable location in your vehicle for the amp, please remember that it is a high-power electronic device capable of generating high heat.

For this reason, **always choose a location in your vehicle which has low vibration, adequate ventilation, a minimum of dust, and no moisture.** Be sure to mount the amp in such a manner as to allow reasonable airflow over the cooling fins.

**Mark the location for the mounting screw holes** by positioning the amp where you wish to install it and use a scribe (or one of the mounting screws) inserted in each of the mounting holes to mark the mounting surface for the mounting surface. If the mounting surface is carpeted, measure the hole centers and mark with a felt tip pen.

**Before attempting to drill the mounting holes, take note of any wires, lines or other devices in your vehicle which may be located behind the mounting surface!** Then drill pilot holes in the mounting surface for the mounting screws and insert them. Tighten the screws securely.

**When making electrical connections to your amplifier, please observe the following:**

Use at least 8 gauge wire for power and ground connections.

Wire the amplifier directly to the car battery.

For the ground connection, use the shortest possible wire to a good chassis ground point.

Wire the Remote connection to the auto start lead of your head unit, equalizer or power antenna.

**About power fuses:**

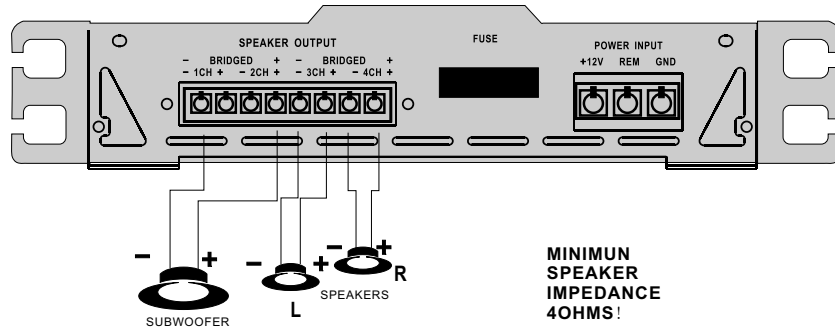
Pyramid Signature Series amplifiers feature built-in fuse systems. These fuses protect both the amplifier and the electrical system in your vehicle from fault conditions. If you ever need to replace the fuse in your Pyramid Signature Series amp, use a fuse of exactly the same type and rating. A different type or rating of fuse may result in damage or fire.

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# PYRAMID speaker connections

## 4ch amp PB1644

### 2CH Bridged Output Mode With Subwoofer Output

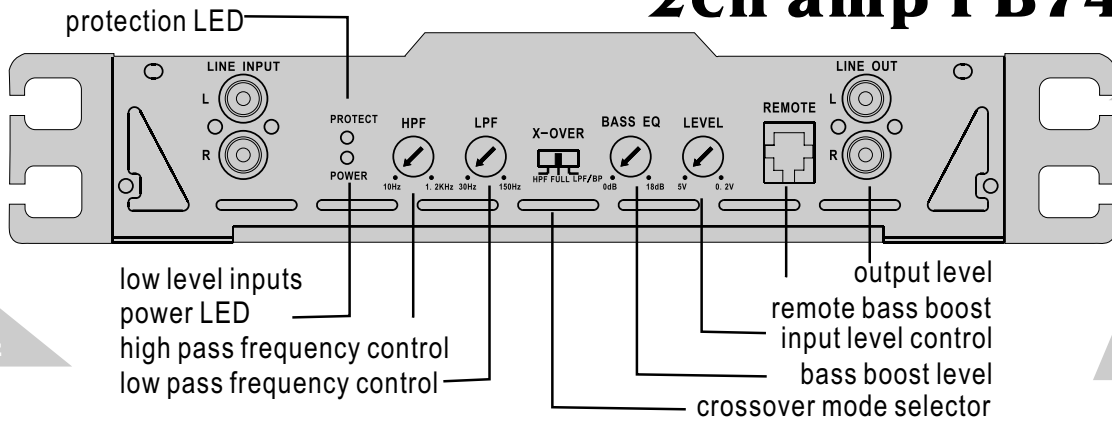


PB1644

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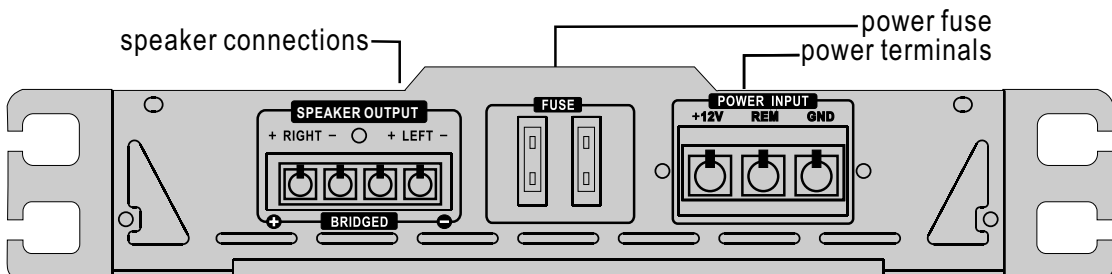
# PYRAMID features and controls

## 2ch amp PB744



PB744

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# PYRAMID features and specifications

## 2ch amp PB744

- crossover mode selector** when used with normal, full range systems, set this switch to "FULL". If you wish the internal crossover to power a driver of specific frequency range, use the "LOWPASS" or "HIGHPASS" settings.
- input level control** use this control to match the outputs of your head unit to the amplifier. Starting with your head unit set at about the 2 o'clock position, increase the amp level control until distortion begins to occur, and reduce slightly from this point.
- low pass frequency control** when the crossover selector switch is in "low pass" mode, this control sets the upper frequency limit for audio program sent to the speakers.
- high pass frequency control** when the crossover selector switch is in "high pass" mode, this control sets the upper frequency limit for audio program sent to the speakers.
- bass boost level control** this control permits adjustment of the bass level up to an increase of approximately 18 dB.
- low level inputs** this amp features gold-plate RCA input jacks for high impedance input. Use these with car stereo output which uses RCA-type connector cables.
- remote bass boost** Plug in the Remote Bass Control wire in here.
- power LED** this indicator is illuminated when power is applied.
- protection LED** this indicator is illuminated when built-in protection circuitry is activated.
- power fuse** the fuse protects the amplifier and your car's electrical system from short circuit conditions.
- power terminals** use these connectors to deliver power, ground and remote turn-on control to the amplifier.
- speaker connections** these terminals are 14K gold plated to guarantee high conductivity and minimum signal loss.

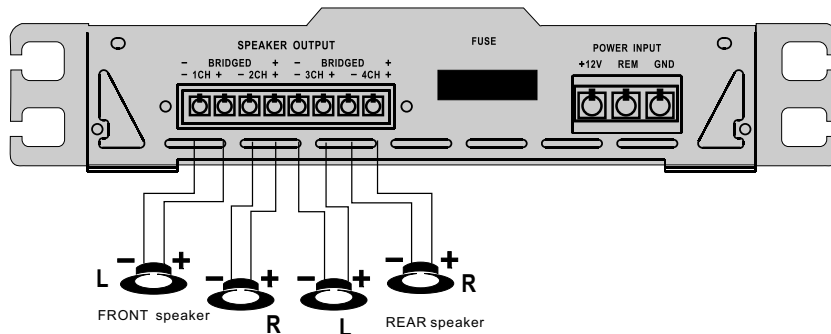
- output power@14.4v DC, 1KHz
- RMS Power @ 4 ohms** 50Watts×2
- RMS Power @ 2 ohms** 100Watts×2
- Maximun Power Output** 250Watts×2
- frequency response 10Hz-70KHz
- input impedance
- low level inputs** 10K Ohms
- high level inputs** 100 Ohms
- input sensitivity
- low level inputs** 200 mV
- power supply voltage 14.4V DC Neg. Ground (10.5-16V)
- matching speaker impedance
- stereo mode** 2-4 Ohms
- bridged mode** 4-8 Ohms
- maximum current draw 15A×2
- dimensions(W×H×L)
- mm** 292×48×251
- inches** 11.7×1.92×10.0

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# PYRAMID speaker connections

## 4ch amp PB1644

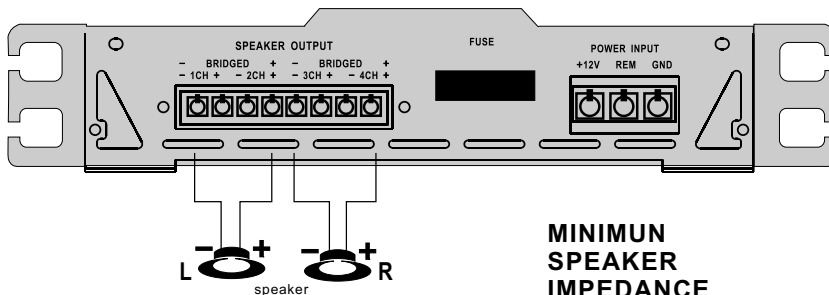
4CH Output Mode



PB1644

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Bridged Dual Mono Output Mode



**MINIMUM  
SPEAKER  
IMPEDANCE  
4OHMS!**

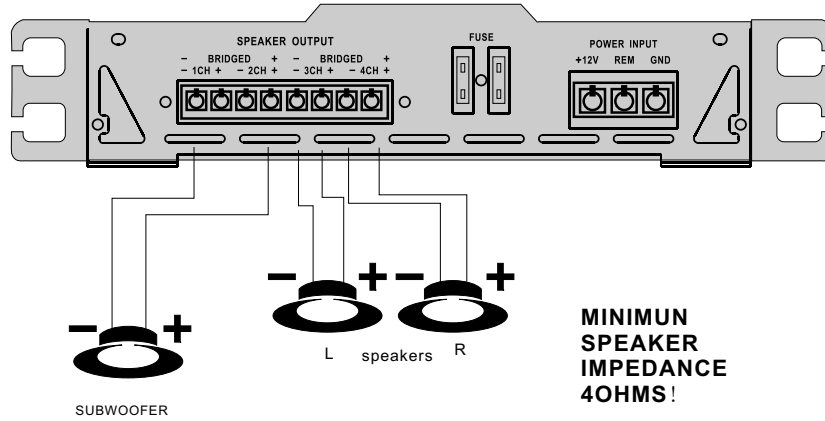
# PYRAMID speaker connections

## 4ch amp PB844

2CH Bridged Output Mode with Subwoofer Output

PB844

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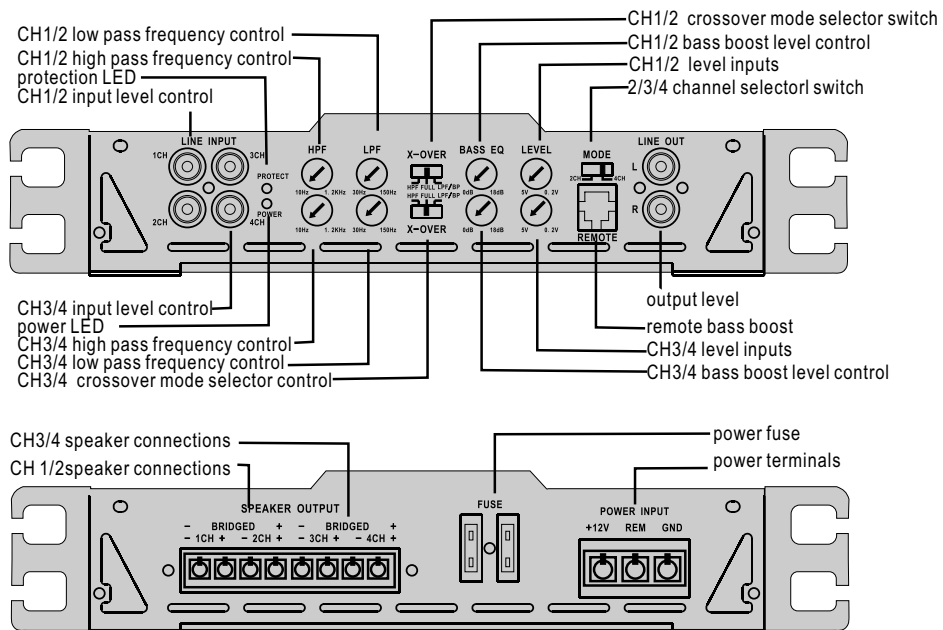


# PYRAMID features and controls

## 4ch amp PB844

PB844

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# PYRAMID features and specifications

## 4ch amp PB844

crossover mode selector	when used with normal, full range systems, set this switch to "FULL". If you wish the internal crossover to power a driver of specific frequency range, use the "LOWPASS" or "HIGHPASS" settings.
low pass frequency control	when the crossover selector switch is in "low pass" mode, this control sets the upper frequency limit for audio program sent to the speakers.
high pass frequency control	when the crossover selector switch is in "high pass" mode, this control sets the upper frequency limit for audio program sent to the speakers.
input level control	use this control to match the outputs of your head unit to the amplifier. Starting with your head unit set at about the 2 o'clock position, increase the amp level control until distortion begins to occur, and reduce slightly from this point.
low level inputs	this amp features gold-plate RCA input jacks for high impedance input. Use these with car stereo output which uses RCA-type connector cables.
high level inputs	if your car stereo lacks RCA-type output jacks, you may connect speaker output leads to these input connectors.
bass boost level control	this control permits adjustment of the bass level up to an increase of approximately 18 dB.
power LED	this indicator is illuminated when power is applied.
protection LED	this indicator is illuminated when built-in protection circuitry is activated.
power fuse	the fuse protects the amplifier and your car's electrical system from short circuit conditions.
power terminals	use these connectors to deliver power, ground and remote turn-on control to the amplifier.
speaker connections	these terminals are 14K gold plated to guarantee high conductivity and minimum signal loss.

output power@14.4v DC, 1KHz	
<b>RMS Power @ 4 ohms</b>	<b>75Watts × 4</b>
<b>RMS Power @ 2 ohms</b>	<b>180Watts × 4</b>
<b>Maximum Power Output</b>	<b>250Watts × 4</b>
frequency response	<b>10Hz-70KHz</b>
input impedance	
<b>low level inputs</b>	<b>10K Ohms</b>
<b>high level inputs</b>	<b>100 Ohms</b>
input sensitivity	
<b>low level inputs</b>	<b>200mV</b>
power supply voltage	<b>14.4V DC Neg.Ground (10.5-16V)</b>
matching speaker impedance	
<b>stereo mode</b>	<b>2-4 Ohms</b>
<b>bridged mode</b>	<b>4-8 Ohms</b>
maximum current draw	<b>25A × 2</b>
dimensions(W×H×L)	
<b>mm</b>	<b>292×48×360</b>
<b>inches</b>	<b>11.7×1.92×14.5</b>

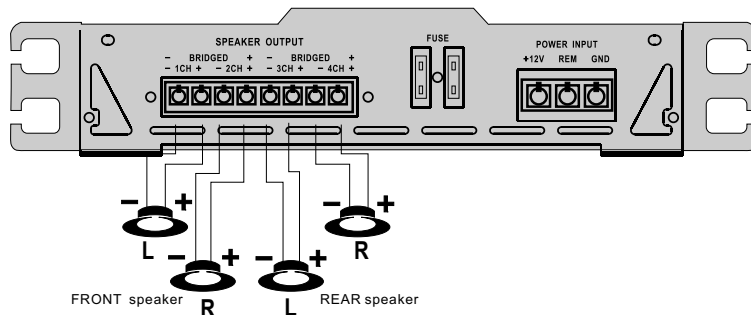
PB844

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# PYRAMID speaker connections

## 4ch amp PB844

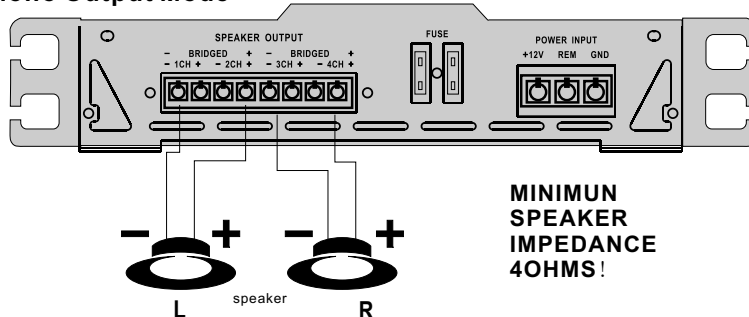
### 4ch Output Mode



PB844

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### Bridged Dual Mono Output Mode

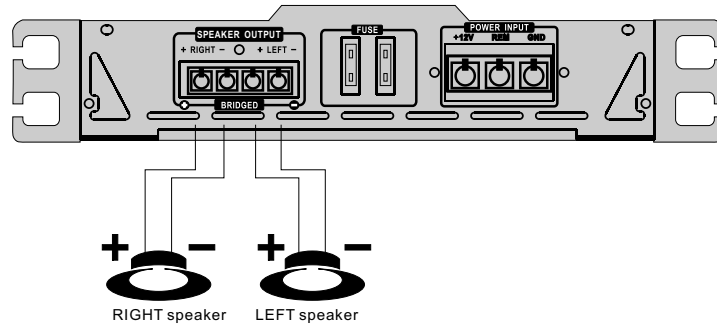


**MINIMUM  
SPEAKER  
IMPEDANCE  
4OHMS!**

# PYRAMID speaker connections

## 2ch amp PB744

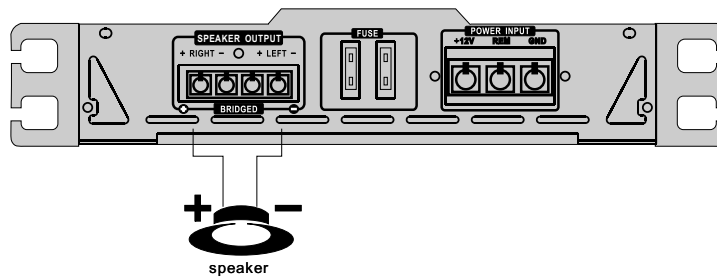
### Stereo Output Mode



PB744

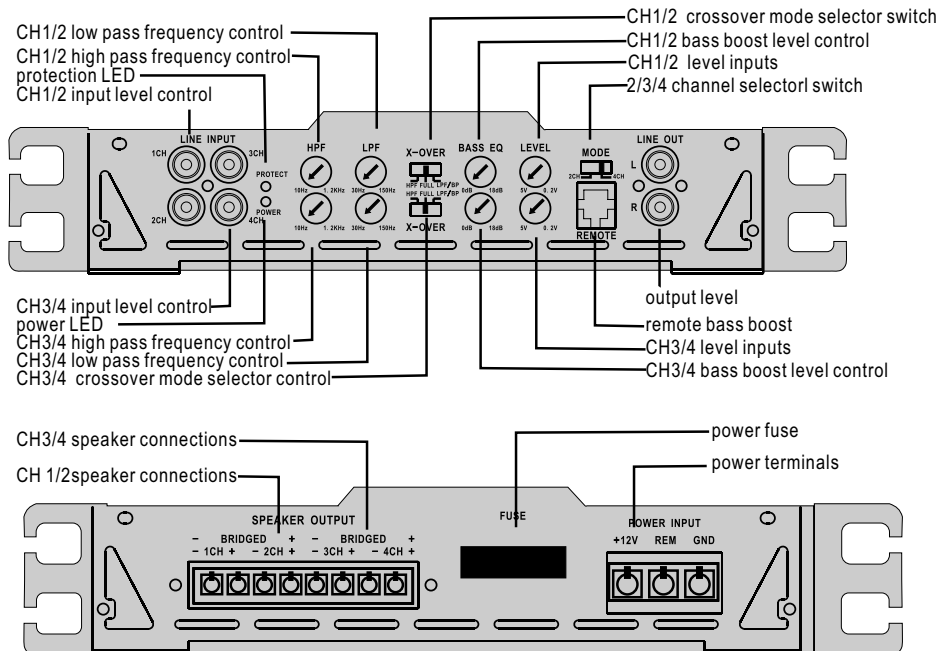
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### Bridged Mono Output Mode



# PYRAMID features and controls

## 4ch amp PB1644



PB1644

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# PYRAMID features and specifications

## 4ch amp PB1644

- crossover mode selector** when used with normal, full range systems, set this switch to "FULL". If you wish the internal crossover to power a driver of specific frequency range, use the "LOWPASS" or "HIGHPASS" settings.
- low pass frequency control** when the crossover selector switch is in "low pass" mode, this control sets the upper frequency limit for audio program sent to the speakers.
- high pass frequency control** when the crossover selector switch is in "high pass" mode, this control sets the upper frequency limit for audio program sent to the speakers.
- input level control** use this control to match the outputs of your head unit to the amplifier. Starting with your head unit set at about the 2 o'clock position, increase the amp level control until distortion begins to occur, and reduce slightly from this point.
- low level inputs** this amp features gold-plate RCA input jacks for high impedance input. Use these with car stereo output which uses RCA-type connector cables.
- high level inputs** if your car stereo lacks RCA-type output jacks, you may connect speaker output leads to these input connectors.
- bass boost level control** this control permits adjustment of the bass level up to an increase of approximately 18 dB.
- power LED** this indicator is illuminated when power is applied.
- protection LED** this indicator is illuminated when built-in protection circuitry is activated.
- power fuse** the fuse protects the amplifier and your car's electrical system from short circuit conditions.
- power terminals** use these connectors to deliver power, ground and remote turn-on control to the amplifier.
- speaker connections** these terminals are 14K gold plated to guarantee high conductivity and minimum signal loss.

- output power@14.4v DC, 1KHz  
**RMS Power @ 4 ohms** 100Watts×4  
**RMS Power @ 2 ohms** 200Watts×2  
**Maximum Power Output** 500Watts×4
- frequency response **10Hz-70KHz**
- input impedance  
**low level inputs** 10K Ohms  
**high level inputs** 100 Ohms
- input sensitivity  
**low level inputs** 200mV
- power supply voltage **14.4V DC Neg.Ground (10.5-16V)**
- matching speaker impedance  
**stereo mode** 2-4 Ohms  
**bridged mode** 4-8 Ohms
- maximum current draw **80A**
- dimensions(W×H×L)  
**mm** 222×48×450  
**inches** 8.88×1.92×18.1

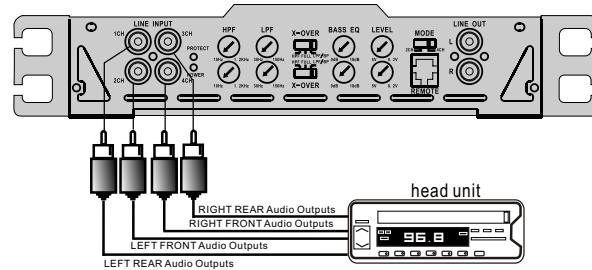
PB1644

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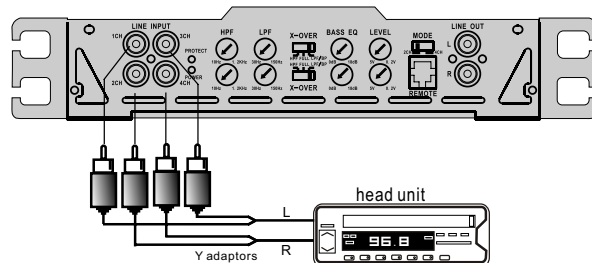
# PYRAMID mono connections

## 4ch amp PB844 PB1644

4ch mono input connections using low level inputs



2ch mono input connections using low level inputs



PB844

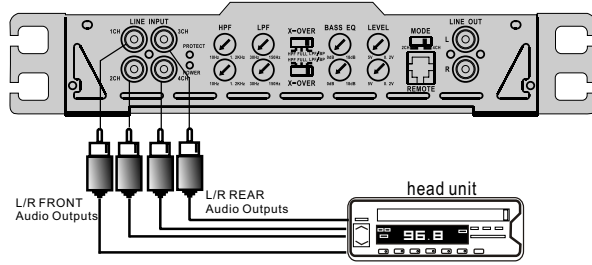
PB1644

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# PYRAMID

## 2/4 channel input connections 4ch amp PB844 PB1644

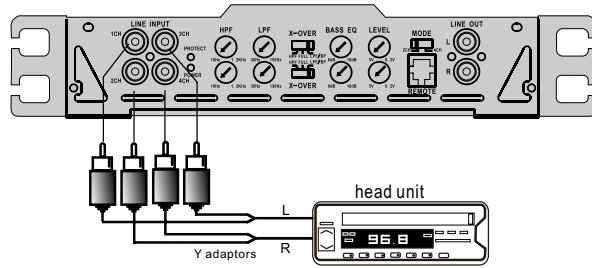
4ch input connections using low level inputs



PB844  
PB1644

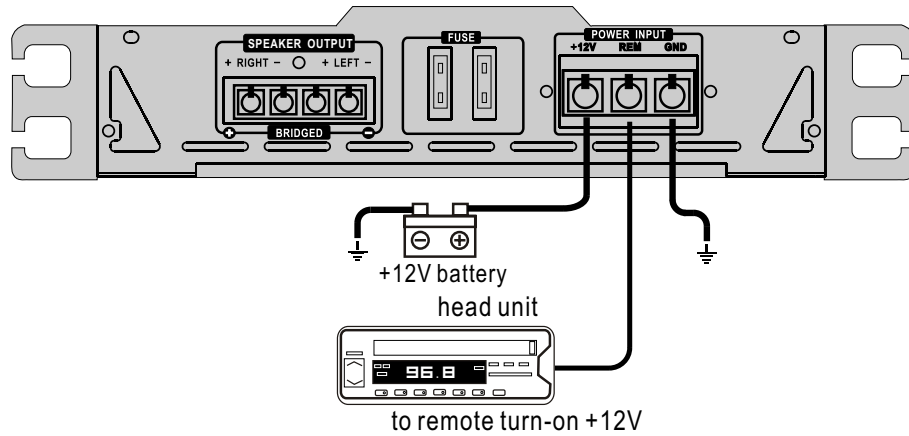
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2ch input connections using low level inputs



# PYRAMID

## electrical connections 2ch amp PB744



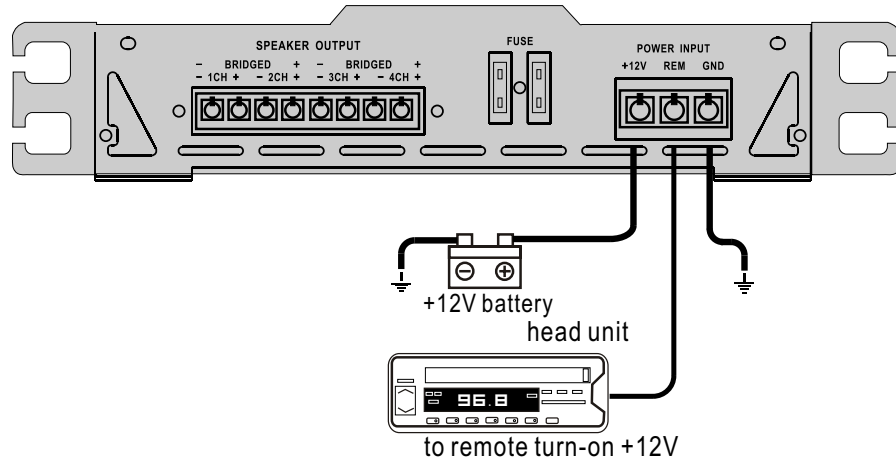
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# PYRAMID

## electrical connections 4ch amp PB844

PB844



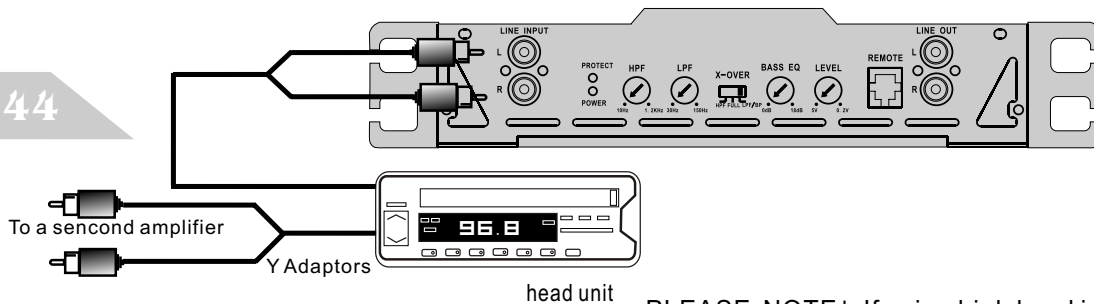
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# PYRAMID

## mono input connections 2ch amp PB744

using low level inputs

PB744



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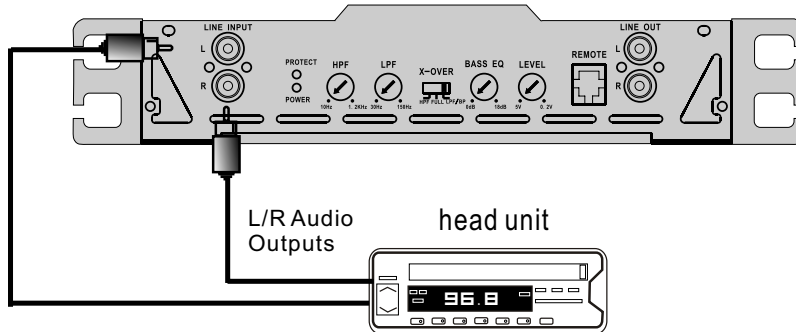
PLEASE NOTE! If using high level inputs, do not use the low level RCA inputs at the same time!

# PYRAMID

## stereo input connections

### 2ch amp PB744

PB744



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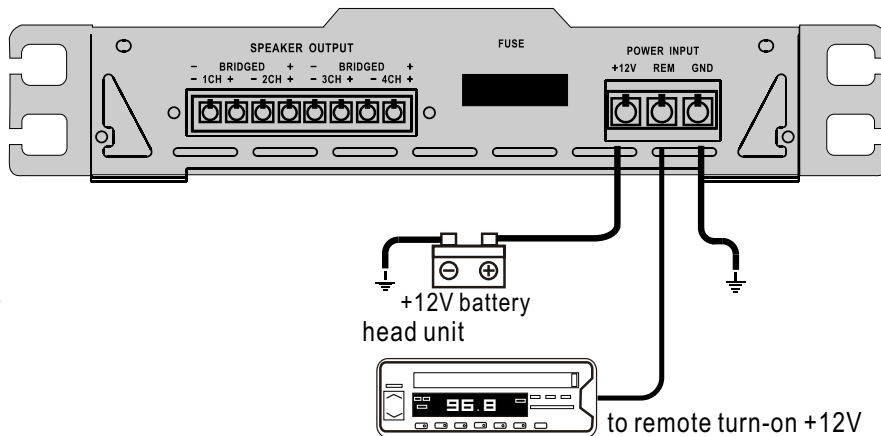
PLEASE NOTE! If using high level inputs, do not use the low level RCA inputs at the same time!

# PYRAMID

## electrical connections

### 4ch amp PB1644

PB1644



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